

Claims

1. An adjuvant comprising a surfactant and a lipid extract of a mycobacterium, e.g. the BCG, *M.microti*, *M.tuberculosis* and *M.vaccae*.
- 5 2. An adjuvant according to claim 1 where the lipid extract comprises the total lipid extract of a mycobacterium, e.g. the BCG, *M.microti*, *M.tuberculosis* and *M.vaccae*.
- 10 3. An adjuvant according to claim 1 or 2 where the lipid extract comprises the apolar fraction or part of the apolar fraction of the total lipid extract of a mycobacterium, e.g. the BCG, *M.microti*, *M.tuberculosis* and *M.vaccae*.
- 15 4. An adjuvant according to claim 3 where the part of the apolar fraction of the lipid extract can be phthiocerol dimycocerosates, trehalose mycolipenates, glycosylated phenol phthiocerols (including phenolic glycolipids, PGL's), trehalose mycolates, sulfolipids, triacylglycerols or menaquinones
- 20 5. An adjuvant according to claim 1-4 where the surfactant is cationic.
6. An adjuvant according to claim 5 where the surfactant is DDA, DODA, DC-chol or DOTAP.
- 25 7. An adjuvant according to claim 1-4 where the surfactant is neutral or anionic, e.g. DOPE/PC or DOPE/PC/PG.
8. A vaccine comprising an adjuvant according to claim 1-7.
9. A vaccine according to claim 8 for parenterally, oral or mucosal administration.
- 30 10. A vaccine according to claim 9 where the antigenic component comprises an antigenic epitope from a virulent mycobacterium, e.g. *Mycobacterium tuberculosis*, *M. bovis* or *M.africanum*.
- 35 11. A vaccine according to claim 10 where the antigenic component is an ESAT6-Ag85B hybrid or a fragment hereof.

12. A vaccine according to claim 9 for treating cancer, allergy or autoimmune diseases.

13. A delivery system comprising an adjuvant according to claim 1-7.

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14. Preparing an adjuvant according to claim 1-7 using thin lipid film method.